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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HON, SOW FUN

ART UNIT PAPER NUMBER

1772

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/228,103

Applicant(s)

GOPAL, HARSH

Examiner

Sow-Fun Hon

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-23,25-31 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 21-23,25-31,33-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. Claims 16-20 were previously allowed in the Office action dated 11/20/01. US 3,898,348 fails to teach or suggest, even in combination with US 3,966,632, a mixture of triglyceryltetraoleate and triglycerylmonooleate wherein the amount of triglyceryltetraoleate is greater than the amount of triglycerylmonooleate, present in an aqueous emulsion coating the internal surface of a food casing.

Correction to Claims

2. Claim 19 should recite "triglyceryltetraoleate" instead of "triglyceryleate" which was incorrectly transferred to the set of claims dated 05/29/02 from the original set of claims dated 10/25/00. The correct version of claim 19, reciting "triglyceryltetraoleate" was first presented in the set of claims dated 10/25/00.

Response to Amendment

New Rejections

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 21, 31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US 3,898,348) in view of Colliopoulos et al. (US 3,966,632).

Regarding claims 21, 31, Chiu has an aqueous emulsion (solution or suspension) (column 5, lines 5-10) for coating the internal surface of a food casing (column 3, lines 15-25), as a release coating (column 4, lines 1-5), comprising vegetable oil (column 3, lines 60-70) and polyglyceryl ester (ester of polyglycerol) (column 4, lines 35-40), the polyglyceryl ester comprising at least two glyceryl moieties (from the term "poly"). Aqueous solutions comprise water as the major solvent. Thus the claimed amounts of greater than 50 wt % (claim 21) and greater than 65 wt % (claim 31) are the result of routine experimentation by one of ordinary skill in the art at the time the invention was made, in order to obtain an aqueous coating with the desired dispersion of the coating components.

Chiu fails to specify that the polyglyceryl ester is from the group consisting of triglyceryltetraoleate or triglycerylmonooleate.

Colliopoulos teaches a commercially available polyglyceryl ester made from soy bean oil which contains a mixture of di-, tri- and tetra polyglyceryl esters (column 1, lines 15-20), and that triglyceryl monooleate is a common emulsifying agent suitable for preparing stable emulsions of vegetable oil containing more than 10 % water (column 1, lines 50-60).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used the common emulsifying agent of triglyceryl monooleate, taught by Colliopoulos, as the polyglyceryl ester of Chiu, in order to obtain a stable aqueous emulsion coating comprising vegetable oil, for the desired release characteristics.

Triglyceryl tetraoleate is a homolog of triglyceryl monooleate. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used

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triglyceryl tetraoleate as the polyglyceryl ester of Chiu, in order to obtain a stable aqueous emulsion coating comprising vegetable oil, for the desired release characteristics.

Regarding claims 43-44, Colliopoulos teaches that the different emulsifying agents have different emulsifying characteristics (column 1, lines 50-60). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a mixture of emulsifying agents comprising triglyceryl monooleate and its homolog of triglyceryl tetraoleate, as the polyglyceryl ester of Chiu, in order to obtain the desired aqueous emulsion coating for the desired release characteristics, as taught by Colliopoulos.

Regarding claims 22-23, 34-35, Chiu teaches an amount of between about 10 % and 90 % by weight of glycerine (glycerol) or propylene glycol (claims 23, 35), which are polyhydric alcohols (claims 22, 34) as defined by the specification (original claims 13-14). This range overlaps the claimed range of from about 10 to about 20 wt % (claims 22, 34).

Regarding claims 25, 36, Chiu teaches that the second component of the coating should be at least about 0.1 times the weight of the cellulose ether in the coating of the internal surface of the casing (column 4, lines 5-15). Chiu teaches at least about 0.05 wt % of water-soluble cellulose derivative (ether) in the aqueous coating (column 5, lines 5-10). Thus the amount of polyglyceryl ester is present in the amount of at least 0.005 wt % in the aqueous emulsion. Therefore the claimed amount of about 1 to about 5 wt % is the result of routine experimentation by one of ordinary skill in the art at the time the invention was made, in order to obtain the desired release coating characteristics.

Regarding claims 30, 33, Chiu teaches 1.0 wt % emulsifier (emulsifying agent) (column 13, lines 39-54), which is within the claimed range of from about 0.1 to about 2 wt %.

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Regarding claims 26-27, 37-38, Chiu teaches at least about 0.05 wt % of water-soluble cellulose derivative (ether) (column 5, lines 5-10), which overlaps the claimed range of up to about 2 wt % (claims 26, 37). The water-soluble derivative can be methylcellulose or hydroxypropylcellulose (column 3, lines 1-5) (claims 27, 38).

Regarding claims 28-29, 39-40, Chiu et al. gives an example of 1.0 wt % silicon oil (silicone fluid) (composition F, column 16, lines 25-30). Silicon oil is taught to be suitable for admixture with the water-soluble cellulose derivative (ether). Silicon oil is a water insoluble low viscosity oil as defined by the specification (original claims 7-8). The amount of 1.0 % falls within the claimed range of up to about 5 wt %.

Regarding claims 41-42, Chiu gives examples of coatings with 78 mg/m² (0.05 mg/in²) of polyglyceryl ester (fatty acid ester) (column 10, lines 45-50). Thus the claimed range of emulsion coating, which includes other ingredients, of from about 200 to 1200 mg per square meter, is within the realm of routine experimentation for one of ordinary skill in the art at the time the invention was made.

Claims 43-44 have been discussed above.

Response to Arguments

5. Applicant's arguments with respect to claims 21-23, 25-31, 33-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon.

Sow-Fun Hon

11/23/04

[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

11/29/04